

## CLAIMS

What is claimed is:

1           1.       A device for reducing the growth of a bone, the device comprising:  
2           a power source for generating a current, wherein the current is effective to reduce  
3       the growth of a bone; and  
4           at least one electrode in electrical communication with the power source, wherein  
5       said electrode is adapted to apply the current to a predetermined location of the bone.

1           2.       The device of claim 1 further comprising more than one electrode in  
2       electrical communication with the power source.

1           3.       The device of claim 1 wherein the at least one electrode comprises a  
2       threaded portion.

1           4.       The device of claim 1 further comprising a controller in electrical  
2       communication with the power source and the at least one electrode, wherein the  
3       controller distributes a predetermined current to the at least one electrode.

1           5.       The device of claim 4 wherein the controller regulates the frequency and  
2       duration the current is distributed to the at least one electrode.

1           6.       The device of claim 4 wherein the controller regulates the amount of the  
2       current applied to each of the at least one electrode.

1           7.       The device of claim 4 wherein the controller programmably regulates the  
2   amount of the current applied to each of the at least one electrode, and the frequency and  
3   duration the current is applied to each of the at least one electrodes.

1           8.       The device of claim 1 wherein the power source and the at least one  
2   electrode delivers a current of at least 50  $\mu$ A.

1           9.       The device of claim 1 comprising at least two electrode and wherein the  
2   current delivered to at least two electrodes is different.

1           10.      A method for reducing the growth of a bone, comprising applying bone  
2   growth reducing electrical current to at least a portion of the growth plate of a bone,  
3   wherein the current is effective to reduce the growth of the bone in the applied region.

1           11.      The method of claim 10 wherein the bone growth reducing electrical  
2   current is effective to arrest the growth of the bone in the applied region.

1           12.      The method of claim 10 wherein the bone growth reducing electrical  
2   current is effective to arrest the growth of the entire bone.

1           13.      The method of claim 10 further comprising positioning at least one  
2   electrode near the growth plate of the bone, wherein the bone growth reducing electrical  
3   current is applied to the growth plate through the at least one electrode.

1           14.     The method of claim 10 further comprising:  
2           positioning at least one electrodes near the growth plate of the bone, wherein the  
3     bone growth reducing electrical current is applied to the growth plate through the at least  
4     one electrode;  
5           providing a power source and controller in electrical communication with the at  
6     least one electrode, wherein the power source generates the bone growth reducing current  
7     and the controller regulates the amount of the current applied to each of the at least one  
8     electrode; and  
9           monitoring the change in growth of the bone.

1           15.     The method of claim 14 further comprising:  
2           determining an amount of correction for the bone; and  
3           removing the power source when the amount of correction has been achieved.

1           16.     The method of claim 10 wherein the bone growth reducing electrical  
2     current is at least 50  $\mu$ A.

1           17.     The method of claim 13 wherein the at least one electrode is positioned in  
2     the growth plate.

1           18.     A method for correcting the curvature of the spine, comprising the steps  
2     of:  
3           positioning at least one electrode at a portion of a vertebrae near the outside curve  
4     of the spine; and  
5           applying a bone growth reducing current to the portion of the vertebrae, wherein  
6     the current is effective to reduce the growth of the vertebrae at the outside of the curve  
7     without reducing growth of the vertebrae near the inside of the curve.

1           19.     The method of claim 18, further comprising the steps of:  
2           determining the amount of correction for the curvature of the spine;  
3           monitoring the change in curvature of the spine; and  
4           removing the at least one electrodes from the vertebrae when the amount of  
5     correction for the curvature of the spine has been achieved.

1           20.     The method of claim 18, further comprising the steps of:  
2           positioning at least two electrodes on the portion of vertebrae along the outside  
3     curve of the spine; and  
4           providing a power source and controller in electrical communication with the at  
5     least two electrodes, wherein the power source generates the bone growth reducing  
6     current and the controller regulates the amount of the current applied to each of the at  
7     least one electrode.

1           21.     The method of claim 20 wherein the controller regulates the frequency and  
2     duration of the current applied to each of the at least two electrodes.

1           22.     The method of claim 20 wherein the amount of current applied to two or  
2 more electrodes is different.

1           23.     The method of claim 20 further comprising the step of:  
2           programming the controller to apply the amount, frequency, and duration of the  
3 current to each of the at least two electrodes.

1           24.     The method of claim 18 further comprising the steps of:  
2           providing at least one second electrode on a portion of the vertebrae along the  
3 inside of the curve of the spine; and  
4           applying a bone growth stimulating current to the at least one electrode.

1           25.     The method of claim 18 wherein the at least one electrode is positioned in  
2 a growth plate.

1           26.     The method of claim 18 wherein the at least one electrode is positioned  
2 near a growth plate.